

REMARKS

Claims 24-59 are pending. Claim 59 is added herein. It is respectfully submitted that all claims are allowable.

Applicant wishes to thank the Examiner for allowing claims 24-47 and 58.

Claims 48, 50-52 and 56 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Inaba et al. (U.S. Patent No. 6,525,403, hereinafter "Inaba") in view of Yu et al. (U.S. Patent No. 6,764,884, hereinafter "Yu"). Applicant respectfully traverses this rejection.

Claim 48, as originally filed, specifically recites, "forming a region of material adjacent portions of the semiconductor fin not underlying the gate electrode such that a sidewall of the semiconductor fin extends above an upper surface of the region of material; and doping the sidewall of the semiconductor fin above the region of material." Applicant respectfully traverses this rejection.

Neither Inaba nor Yu teach doping a sidewall of the semiconductor fin above a region of material. The final rejection admits that Inaba does not teach the limitation. Further, Yu does not teach such a limitation. At column 6, line 24, Yu teaches that the source/drain regions 220 and 230 can be doped. The Office Action has not shown, nor can Applicant find, any place that teaches or suggests that the doping is performed above any region of material.

The Office Action points to spacer regions 410, which are shown in Figure 4 of Yu. Claim 48 explicitly requires that "a sidewall of the semiconductor fin extends above an upper surface of the region of material." Review of Figure 4 and the accompanying text makes clear that no portion of semiconductor fin 210 extends above any surface of the spacer 410. Just as clearly, no sidewall of the fin 210 is doped above the spacer 410.

Since neither reference alone teaches the claimed limitation, the combination of references cannot teach the claimed limitation. Therefore, it is respectfully submitted that claim 48 is allowable over the references of record.

Claims 49-57 and 59 depend from claim 48 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

For example, claim 56 specifically recites removing the region of material after doping the sidewall. This limitation is not taught or suggested by either Inaba or Yu. In addition, the Office Action fails to provide any rationale as to how this limitation could be taught.

Claim 57 was not rejected in the Office Action and, therefore, is presumed to be allowed. It is respectfully submitted that claim 57 is allowable. (It is also noted that since the claim has never been rejected, any final rejection would be premature.)

Claim 59 is added herein. No new matter is added. Claim 59 depends from claim 48 and specifically recites that the sidewall is doped in alignment with the region of material. Neither Inaba nor Yu teach or suggest the limitations of claim 59.

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Ira S. Matsil, Applicant's attorney, at 972-732-1001 so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge Deposit Account No. 50-1065.

Respectfully submitted,



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Date

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